

SIEMENS

PATENT
Attorney Docket No. 2002P02987WOUS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Inventor: M. Grühn, et al.)	Group Art Unit: 2857
)	
Serial No.: 10/501,725)	Confirm no.: 4372
)	
Filed: July 15, 2004)	Examiner: M. Charioui

Title: DIAGNOSIS SYSTEM FOR AT LEAST ONE TECHNICAL SYSTEM

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Sir:

APPELLANT'S BRIEF UNDER 37 CFR 41.37

This brief is in furtherance of the Notice of Appeal filed in this application on January 28, 2008.

1. REAL PARTY IN INTEREST - 37 CFR 41.37(c)(1)(i)

The real party in interest in this Appeal is the assignee Siemens Aktiengesellschaft.

2. RELATED APPEALS AND INTERFERENCES - 37 CFR 41.37(c)(1)(ii)

There is no other appeal, interference or judicial proceeding that is related to or that will directly affect, or that will be directly affected by, or that will have a bearing on the Board's decision in this Appeal.

3. STATUS OF CLAIMS - 37 CFR 41.37(c)(1)(iii)

Claims pending: 6-13, 15, 16

Claims cancelled: 1-5, 14, 17

Claims withdrawn but not cancelled: NONE

Claims allowed: NONE

Claims objected to: NONE

Claims rejected: 6-13, 15, 16

The claims on appeal are 6-13, 15, and 16.

4. STATUS OF AMENDMENTS - 37 CFR 41.37(c)(1)(iv)

A response after final rejection was filed under 37 CFR 1.116 on 21 November 2007. No claim amendments were presented in that response. In an Advisory Action dated 28 December 2007 the Examiner indicated that he disagreed with the arguments presented in the response after final rejection.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER- 37 CFR 41.37(c)(1)(v)

The substitute specification for the subject application contained paragraph numbers but not line numbers. Accordingly, line numbers cited herein are counted within given numbered paragraphs in the substitute specification. The claimed subject matter is best illustrated in FIG 2, which shows a system in accordance with the claims on appeal. The invention relates generally to a diagnostics system 1 configured to access and to diagnose a plurality of remote stationary power stations 5 via a centralized data acquisition unit 17.

Independent claim 6 is directed to a diagnostics system 1 configured to access and diagnose a plurality of remote stationary power stations 5 (page 14, par. 58, lines 1-2). The diagnostic system 1 has an acquisition unit 17 that is remote from at least one of the stationary power stations 5 for collecting measurement data MD (page 14, par. 60, lines 2-5) detected by sensors (page 3, par. 12, line 2) in the power stations 5. A diagnostics unit 25 is connected to the acquisition unit 17 for classification K of operating states of the power stations 5 that are represented by the measurement data MD (page 15, par. 62, lines 1-3). A memory unit 20 is

connected to the acquisition unit 17 and the diagnostics unit 25 (page 14, par. 60, lines 1-2). The measurement data MD is centrally stored in the memory unit 20 (page 15, par. 61, lines 4-6). A server unit 21 connected to the memory unit 20 generates machine-readable data based on an HTML language (page 15, par. 61, lines 1-2).

Independent claim 12 is directed to a virtual diagnostics system 1 configured to access and diagnose a plurality of remote stationary power stations 5 (page 16, par. 64, lines 1-3). The diagnostic system has a server S at each power station 5 for transferring collected measurement data MD via an internet I. A memory unit 20 with an acquisition unit 17 and a server unit 21 receives the collected measurement data MD via the internet I from each power station server S, and saves at least some of the collected measurement data MD. A diagnostics unit 25 has a server unit receiving the collected measurement data MD via the internet I for classification K of the measurement data MD (page 15, par. 62, lines 1-3). A client computer 15 has an internet browser B and a communication link 10 to the internet I that is able to link to the memory server unit 21, wherein the measurement data MD saved in the memory unit 20 can be retrieved by the client computer 15 (page 15, par. 63, lines 1-5).

6. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL - 37 CFR 41.37(c)(1)(vi)

In the final office action of 09-25-2007, claims 6-13, 15, and 16 were rejected under 35 USC 102(e) as being anticipated by Reid et al. (U.S. 6,298,308).

7. ARGUMENT 37 CFR 41.37(c)(1)(vii)

Arguments applicable to all claims:

Examiner asserts that the data acquisition unit 16 of Reid can be remote. However, it is consistently described and shown as local, such as in the lines below.

Reid col. 2, lines 34-40: "The present invention provides an entirely new approach to conducting predictive maintenance. The present invention provides a system in which localized experts are provided at various machine sites. The localized experts are automated data collector/analyzers which are configured to acquire and analyze vibration data substantially continuously from one or more machines located at the site."

Reid's "local expert" 16 is never shown or described as remote. The term "local expert" or "localized expert" is used over 230 times in Reid. His reference numeral "16" appears in the specification 119 times, and every one of those appearances uses the terminology "local expert 16". One could hardly teach away from remote data acquisition and analysis more strongly.

The whole purpose of Reid is to provide data acquisition and analysis locally, as opposed to remotely, as is stated in his col. 2, lines 34-44 copied above. In contrast, Applicants' invention provides a remote data acquisition unit 17 (FIG 2) that centrally collects data from multiple remote sites, and a remote analysis unit 25 that centrally analyzes the collected data. Applicants' independent claims 6 and 12 recite a diagnostics system configured to access and diagnose a plurality of remote stationary power stations, by means of "an acquisition unit remote from at least one of the stationary power stations for collecting measurement data detected by sensors in the power stations" (claim 6) or "an acquisition unit and a server unit receiving the collected measurement data via the internet from each power station server (claim 12).

Page 4 of the final office action of 09-25-2007 held or implied that Reid's central monitoring location 34 corresponds to Applicants' remote data acquisition and analysis units 17, 25. This holding has become Examiner's grounds for maintaining the rejection per the advisory action of 12-28-2007. Presumably this means the Examiner has abandoned the previous grounds that Reid's local experts 16 are remote. However, Reid's data acquisition units are his local experts 16 (Reid col. 7, lines 48-56 copied below). Reid's central monitoring location 34 obtains data from the local experts for further analysis, including by human experts (col. 7, lines 47-55). Thus, Reid's central monitoring location 34 corresponds to Applicants' client computer 15. The distinction is that Applicants' client computer 15 obtains data that has been collected and classified for a plurality of remote power stations 5 from one central data

acquisition and memory unit 20 as claimed. In contrast, Reid's central monitoring location 34 can only obtain data from a local expert 16 at each remote location.

Reid col. 7, lines 47-50: "Furthermore, the central monitoring location 34 is configured to control the local experts 16 via the DUN [dial-up network] or VPN [virtual private network], for example, and is thus capable of performing real time analysis of data collected by a given local expert 16."

Since Reid does not teach a remote data acquisition unit 17 or a central memory unit 20 for a plurality of power stations as claimed in Applicants' independent claims, the rejections under 35 USC 102 are not supported.

Arguments applicable to only specific claims discussed:

Claim 7 recites an Internet communication between a client computer 15 and the server unit 21. This means that the client computer 15 is remote from the central memory unit 20 where measurement data MD is collected by a data acquisition unit 17 and is centrally stored. Examiner holds that Reid's remote monitoring site 34 corresponds to Applicants' data acquisition unit 17. However Reid's remote monitoring site 34 is remote from his data acquisition unit 16. Reid's elements 16 and 34 are not the same element. Instead, Reid's remote monitoring site 34 corresponds functionally and topologically to Applicants' client computer 15 -- not to Applicants' data acquisition unit 17. In Reid, measurement data are not stored in a central memory unit, but must be obtained by the remote monitoring site 34 from each local data acquisition unit 16.

Since Reid does not teach a remote data acquisition unit 17 or a central memory unit 20 for a plurality of power stations as claimed in claim 7, the rejections under 35 USC 102 are not supported.

Claim 12 is a picture claim descriptive of FIG 2. Reid does not teach or show Applicants' central memory unit 20 that stores collected measurement data MD from a plurality of remote power stations 5 for remote access by a client computer 15.

8. CLAIMS APPENDIX - 37 CFR 41.37(c) (1) (viii).

A copy of the claims involved in this appeal is attached as a claims appendix under 37 CFR 41.37(c) (1) (viii).

9. EVIDENCE APPENDIX - 37 CFR 41.37(c) (1) (ix)

None is required under 37 CFR 41.37(c) (1) (ix).

10. RELATED PROCEEDINGS APPENDIX - 37 CFR 41.37(c) (1) (x)

None is required under 37 CFR 41.37(c) (1) (x).

Respectfully submitted,

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APPENDIX OF CLAIMS ON APPEAL

6. A diagnostics system configured to access and diagnose a plurality of remote stationary power stations, comprising:

an acquisition unit remote from at least one of the stationary power stations for collecting measurement data detected by sensors in the power stations;

a diagnostics unit connected to the acquisition unit for classification of operating states of the power stations that are represented by the measurement data;

a memory unit connected to the acquisition unit and the diagnostics unit and the measurement data is centrally stored in the memory unit; and

a server unit connected to the memory unit that generates machine-readable data based on an HTML language.

7. The diagnostics system as claimed in claim 6, wherein portions of the machine-readable data are generated while a connection is established to the server unit of the diagnostics system by at least one client computer via a communications link by an Internet browser installed on the client computer and the parts of the machine-readable data are requested by the client computer.

8. The diagnostics system as claimed in claim 7, wherein the machine-readable data is transferred from the server unit to the client computer by the TCP/IP protocol via the communications link that includes an intranet and/or the Internet.

9. The diagnostics system as claimed in claim 6, wherein a dynamic operating and/or monitoring interface of the diagnostics system is formed by the machine-readable data.

10. The diagnostics system as claimed in claim 6, wherein the machine-readable data comprise HTML pages that are stored as pre-prepared, static data in a memory unit of the diagnostics system and are generated dynamically by the server unit by combining a page generation code and at least part of the measurement data stored in the memory unit.

11. The diagnostics system as claimed in claim 6, wherein the machine-readable data comprise HTML pages that are stored as pre-prepared, static data in a memory unit of the diagnostics system or generated dynamically by the server unit by combining a page generation code and at least part of the measurement data stored in the memory unit.

12. A virtual diagnostics system configured to access and diagnose a plurality of remote stationary power stations, comprising:
 - a server at each power station for transferring collected measurement data via an internet;
 - a memory unit comprising an acquisition unit and a server unit receiving the collected measurement data via the internet from each power station server, and saving at least some of the collected measurement data;
 - a diagnostics unit comprising a server unit receiving the collected measurement data via the internet for classification of the measurement data; and
 - a client computer comprising an internet browser and a communication link to the internet, and able to link to the memory server unit, wherein the measurement data saved in the memory unit can be retrieved by the client computer.
13. The virtual diagnostics system as claimed in claim 12, wherein the measurement data is transferred in the form of dynamically generated HTML pages.
15. The virtual diagnostics system as claimed in claim 12, wherein the measurement data from at least one of the power stations is transferred to the memory unit if there has been a change in an operating state of a power station concerned.

16. The virtual diagnostics system as claimed in claim 12, wherein machine readable data based on the HTML language is generated by the server unit so the measurement data saved in the memory unit can be transferred as HTML pages via the internet.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.